What is claimed is:

CLAIMS

1. A method for identifying compounds potentially useful to treat or to prevent a disease or disorder, wherein said disease or disorder is characterized by an inflammatory response involving an abnormality in a signal transduction pathway that includes an interaction between a PYK2 polypeptide and a natural binding partner, comprising assaying one or more compounds for those able to modulate said interaction as a means to identify said potentially useful compounds.

2. The method of claim 1, wherein said disease or disorder characterized by an inflammatory response is selected from the group consisting of inflammatory bowel diseases and connective tissue diseases.

3. The method of claim 1, wherein said one or more compounds modulate said interaction *in vitro*.

4. The method of claim 1, wherein said one or more compounds modulate said interaction *in vivo*.

5. The method of claim 1, wherein said one or more compounds is selected from the group consisting of tyrphostins, quinazolines, quinoxolines, quinolines, and indolinones.

6. The method of claim 5, wherein said one or more compounds is one or more indolinones.

7. The method of claim 1, wherein said interaction is selected from the group consisting of PYK2 phosphorylation, PYK2 natural binding partner, phosphorylation, PYK2 de-phosphorylation, PYK2 natural binding partner de-phosphorylation, and complex formation between PYK2 and a natural binding partner.

8. A method for diagnosis of a disease or disorder, wherein said disease or disorder is characterized by an inflammatory response involving an abnormality in a signal transduction pathway that includes an interaction between a PYK2 polypeptide and a natural binding partner, comprising detecting a change in said interaction as an indication of said disease or disorder.

9. The method of claim 8, wherein said disease or disorder characterized by an inflammatory response is selected from the group consisting of inflammatory bowel diseases and connective tissue diseases.

10. The method of claim 9, wherein said inflammatory bowel diseases are selected from the group consisting of ulcerative colitis and Crohn's Disease.

11. The method of claim 9, wherein said connective tissue diseases are selected from the group consisting of rheumatoid arthritis, systemic lupus erythematosus, progressive systemic sclerosis, mixed connective tissue disease, and Sjögren's syndrome.

12. The method of claim 8, wherein said interaction is selected from the group consisting of PYK2 phosphorylation, PYK2 natural binding partner phosphorylation, PYK2 de-phosphorylation, PYK2 natural binding partner de-phosphorylation, and complex formation between PYK2 and a natural binding partner.

13. The method of claim 8, wherein said change is an increase or a decrease in said interaction.

14. A method for treating or preventing a disease or disorder, wherein said disease or disorder is characterized by an inflammatory response involving an abnormality in a signal transduction pathway that includes an interaction between a PYK2 polypeptide and a natural binding partner, comprising administering to a patient

in need of such treatment one or more compounds, wherein said one or more compounds modulate said interaction.

15. The method of claim 14, wherein said disease or disorder characterized by an inflammatory response is selected from the group consisting of inflammatory bowel diseases and connective tissue diseases.

16. The method of claim 15, wherein said inflammatory bowel diseases are selected from the group consisting of ulcerative colitis and Crohn's Disease.

17. The method of claim 15, wherein said connective tissue diseases are selected from the group consisting of rheumatoid arthritis, systemic lupus erythematosus, progressive systemic sclerosis, mixed connective tissue disease, and Sjögren's syndrome.

18. The method of claim 14, wherein said patient is a mammal.

19. The method of claim 18, wherein said mammal is a human.

20. The method of claim 14, wherein said one or more compounds modulate said interaction *in vitro*.

21. The method of claim 14, wherein said one or more compounds modulate said interaction *in vivo*.

22. The method of claim 14, wherein said one or more compounds is selected from the group consisting of tyrphostins, quinazolines, quinoxolines, quinolines, and indolinones.

23. The method of claim 22, wherein said one or more compounds is one or more indolinones.

24. The method of claim 14, wherein said one or more compounds is in a pharmaceutically acceptable composition.

25. The method of claim 14, wherein said interaction is selected from the group consisting of PYK2 phosphorylation, PYK2 natural binding partner phosphorylation, PYK2 de-phosphorylation, PYK2 natural binding partner de-phosphorylation, and complex formation between PYK2 and a natural binding partner.